

AMENDMENTS TO THE CLAIMS

1-123 (Cancelled).

124. **(Currently amended)** A method for fabricating an orthopedic implant prosthesis bearing, comprising the steps of:

a) pre-annealing a polyethylene preform at a temperature greater than ambient temperature and less than the decomposition temperature of the polyethylene for a period of time greater than about 30 minutes;

b) irradiating the polyethylene preform to crosslink the polyethylene preform; and quenching residual free radicals in the polyethylene preform.

125. **(Currently amended)** The method of claim 124, further comprising the steps of:

a) cooling the preform after the quenching step to a temperature below the melting temperature of the polyethylene; and

b) forming the preform into a prosthetic bearing.

126. **(Currently amended)** A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

a) pre-annealing an ultrahigh molecular weight polyethylene preform;

b) irradiating the ultrahigh molecular weight polyethylene preform to crosslink the ultrahigh molecular weight polyethylene preform;

c) quenching residual free radicals in the ultrahigh molecular weight polyethylene preform subsequent to the irradiating step; and

d) forming the ultrahigh molecular weight polyethylene preform into a prosthetic bearing.

127. **(Currently amended)** A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

- a) pre-annealing a polyethylene preform;
- b) irradiating the polyethylene preform to crosslink the polyethylene preform;
- c) quenching residual free radicals in the polyethylene preform subsequent to the irradiating step; and
- d) forming the polyethylene preform into a prosthetic bearing.

128. **(New)** A method for fabricating an orthopedic implant prosthesis bearing, comprising the steps of:

melting a polyethylene preform for a period of time greater than about 30 minutes;

irradiating the polyethylene preform to crosslink the polyethylene preform; and
quenching residual free radicals in the polyethylene preform.

129. **(New)** The method of claim 128, further comprising the steps of:
cooling the preform after the quenching step to a temperature below the melting temperature of the polyethylene; and
forming the preform into a prosthetic bearing.

130. **(New)** A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

melting an ultrahigh molecular weight polyethylene preform;

irradiating the ultrahigh molecular weight polyethylene preform to crosslink the ultrahigh molecular weight polyethylene preform;

quenching residual free radicals in the ultrahigh molecular weight polyethylene preform subsequent to the irradiating step; and

forming the ultrahigh molecular weight polyethylene preform into a prosthetic bearing.

131. **(New)** A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

melting a polyethylene preform;

irradiating the polyethylene preform to crosslink the polyethylene preform;

quenching residual free radicals in the polyethylene perform after an irradiation;

and

forming the polyethylene preform into a prosthetic bearing.

132. **(New)** The method according to claim 128, wherein the polyethylene is ultrahigh molecular weight polyethylene.

133. **(New)** A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

irradiating a polyethylene preform that has been melted, thereby crosslinking the polyethylene

quenching residual free radicals in the polyethylene perform after an irradiation;

and

forming the polyethylene preform into a prosthetic bearing.

134. **(New)** The method according to claim 133, wherein the polyethylene is ultrahigh molecular weight polyethylene.